NATURAL RESOURCES CONSERVATION SERVICE

CONSTRUCTION SPECIFICATIONS

CONTOUR FARMING

1. Scope

The work shall consist of farming cultivated land so that all farming operations are carried out on the contour.

2. Layout

The farming operations will be conducted on the contour of the land as shown on the conservation plan map or drawings.

Maximum row grade shall not exceed 2 percent or one-half of the uphill and downhill slope, whichever is less.

Up to 3 percent row grade is permitted within 150 feet of a stable outlet.

Field markers shall be installed or identified to provide guide posts for equipment operators.

Reference lines for contour farming will:

- Not deviate more than 1 percent grade from key contour lines, except within 150 feet or less from a stable outlet, grade deviation will not exceed 3 percent.
- Be established on 0.2 to 1.0 percent grade for slowly or very slowly permeable soils (soil hydrologic group C or D) toward a stable drainage course.
- Be spaced so seedbed preparation, planting, and cultivating of crops can be managed within the above guidelines.

Contour farming layout shall not occur on hill slopes that exceed the critical slope length, which is the maximum length of slope on which the contouring practice will be effective. Slope lengths shall not exceed the following values. These values may be increased by 25 percent when at least 50 percent soil surface residue cover is present throughout the cropping rotation.

Slope	**1-2%**	**3-5%**	**6-8%**	**9-12%**
Length	400 ft.	300 ft.	200 ft.	120 ft.

3. Cultural Operations

Farming operations shall be performed in a manner so that:

- Dead furrows are not left in the same place each time.
- Reference lines will be established and maintained near to the contour.
- Reference lines will be spaced so seedbed preparation, planting, and cultivating of the crop can be carried out within the above guidelines.
- Tillage operations, planting, and cultivating will be done parallel to contour reference lines, provided row gradients within the system do not exceed 2 percent for distances of 100 feet or unless graded toward grassed water courses or to adjust for turns on field ridges.
- On irrigated land, furrow lengths are in accordance with the irrigation guide.
- Runoff water is safely conducted away from critical areas to a protected outlet.

- Small areas, less than 10 percent of the field, may be exempt from contouring.
- Farming operations performed parallel to terraces or diversions constitute contour farming, if the resulting row gradients meet the minimum requirements of these specifications.
- Headlands or end rows that are steeper than the maximum row grade criteria shall have a cover management condition no greater than 3 or established to permanent field borders. Cover-Management Conditions are described in Table 1.

4. Documentation

Items marked with an asterisk (*) shall be recorded as minimum documentation requirements:

- *Identified problem or resource concern and practice objectives.
- *Extent of acres.
- *Crop rotation or sequence.
- *Soil loss prediction estimates.
- Fertility management.
- Pest (weed, disease, insect) management.

The minimum specifications for this practice will be recorded in the conservation plan narrative, appropriate job sheet, or the conservation assistance notes.

5. Other Requirements

The owner, operator, contractor, or other persons shall conduct all work and operations in accordance with proper safety code for the type of equipment and operations being performed with due regard to the safety of all persons and property.

Table 1 - Cover Management Conditions

Select the cover management condition that best describes the land surface conditions during spring seedbed preparation and planting when rainfall and runoff are most erosive and the soil is most susceptible to erosion. Use the following descriptions of cropland cover-management conditions for estimating "P" factor values.

Cover-Management Conditions	Description
Code 1. Established grass/legume cover	The grass cover is dense and runoff is very slow--the slowest under any vegetative condition. When mowed and baled, this condition is Code 2.
Code 2. Established hay under harvest management	Hay is a mixture of grass and legume just before cutting. The vegetation is a good grass/legume stand and is harvested for hay. When harvested, this cover condition becomes a Code 4 until regrowth occurs.
Code 3. Heavy cover and/or very rough	Ground cover for this condition is about 65 to 95 percent as with no-till planting. Roughness depressions would have the appearance of being 7 inches deep and deeper.
Code 4. Moderate cover and/or rough	The ground cover for this condition is about 40 to 65 percent. Roughness depressions would have the appearance of being about 4 to 6 inches deep.
Code 5. Light cover and/or rough	Ground surface cover is between 10 to 40 percent. Roughness depressions would have the appearance of being on the order of 2 to 3 inches deep.
Code 6. No cover and/or minimal roughness	This condition is very much like the condition typically found in row-cropped fields after the field has been planted and exposed to a moderately intense rainfall. Ground cover is less than about 10 percent and the roughness characteristic of a good seedbed for corn or soybeans. The surface is rougher than that of a finely pulverized seedbed for seeding vegetables or grass.
Code 7. Clean-tilled, smooth fallow	This condition is essentially bare with a cover of 5 percent or less. The soil has not had a crop grown on it in the last 6 months or more. Many residual effects of previous cropping have disappeared. The surface is smooth, much like the surface that develops on a finely pulverized seedbed exposed to several intense rainfalls. This condition is found in fallow and vegetable fields or in newly seeded lawns.